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REMARKS

This response is intended as a full and complete response to the final Office Action mailed July 25, 2006. In the Office Action, the Examiner notes that claims 1, 2, 6-14, 18-28, 32 and 33 are pending and rejected. Applicants have herein amended claims 1, 13, 25, 27, and 33 to correct typographical errors. Applicants respectfully request entry of these amendments.

In view of the foregoing amendments and the following discussion, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response including amendments.

35 U.S.C. §103 Rejection of Claims 1-2, 13-14, 27-28 and 33

The Examiner has rejected claims 1-2, 13-14, 27-28 and 33 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,363,065 to Thornton et al. (hereinafter "Thornton") in view of U.S. Patent 6,918,034 to Sengodan et al. (hereinafter "Sengodan") and further in view of U.S. Patent 6,717,948 to Subbiah (hereinafter "Subbiah"). Applicants respectfully traverse the rejection.

The Examiner is respectfully directed to Applicants' prior arguments and discussions as presented in Applicants' prior Office Action responses. Applicants respectfully maintain that Thornton fails to teach or suggest the limitation of "determining whether a destination is serviced by a second VoIP gateway."

In the Office Action, the Examiner maintains that Thornton teaches Applicants' limitation of "determining whether a destination is serviced by a second VoIP gateway." Specifically, in the Office Action, the Examiner states that "the originating VoIP gateway does affirmatively determine that destination VoIP gateway is present for connection as the necessary condition for a

connection between the two VoIP gateway[s]." (Office Action, Pg. 2, Emphasis added). In other words, the Examiner concludes that Thornton teaches determining that a second VoIP gateway is present in order to support a connection between a first VoIP gateway and the second VoIP gateway.

Applicants respectfully submit, however, that this is not what is claimed in Applicants' claim 1. Rather, Applicants' limitation is directed to the association between a second VoIP gateway and a destination device, not to the association between the second VoIP gateway and a first VoIP gateway. Specifically, Applicants' limitation is a determination as to whether a destination is serviced by a second VoIP gateway. The mere fact that a first VoIP gateway is peered to a second VoIP gateway for communication between the VoIP gateways, as taught in Thornton, simply does not teach or suggest "determining whether a destination is serviced by a second VoIP gateway," as taught in Applicants' invention of claim 1.

In the Office Action, the Examiner maintains that Applicants' limitation of "determining whether a destination is serviced by a second VoIP gateway" is met by Thornton at column 13, lines 57-62 and column 14 lines 3-8. Applicants respectfully maintain that this is incorrect. The cited portions of Thornton merely state that:

"[The] DSP and the microcontroller convert the digitized telephony signal for that call into suitable IP packets and transmit those packets, with appropriate IP addresses, over the LAN for subsequent carriage over the data network to a peer gateway." (Thornton, Col. 13, Lines 57-62).

"Each separate called number has an associated IP address, which ultimately is known to both peer gateways ... such that the peered gateways can properly address the IP packets to their unique called destination." (Thornton, Col. 14, Lines 3-8).

In other words, the cited portion of Thornton merely states that each called number has an associated IP address. The cited portion of Thornton is devoid of any determining step, much less determining whether a destination is serviced by a VoIP gateway. Furthermore, the above-quoted portions of Thornton clearly

evidence two critical facts; namely, (1) that a peer to peer communication is envisioned (i.e., that each call is definitely being made from a first gateway to a second gateway, where both gateways have substantially equivalent topologies), and (2) that both gateways have full, *a priori*, knowledge of the IP addresses of other gateways. Thus, not only does Thornton fail to teach or suggest Applicant's limitation of "determining whether a destination is serviced by a second VoIP gateway," but, since the Thornton arrangement is specifically directed to a peer to peer arrangement (i.e., calls are only made between peered gateways), there is simply no need within the Thornton arrangement to perform the step of "determining whether a destination is serviced by a second VoIP gateway" since only such destinations are used.

Further to Applicants' prior arguments and discussions, and further to the above discussion, the Thornton reference also fails to disclose or suggest Applicants' limitation of "transporting said multiplexed voice traffic to said second VoIP gateway utilizing a plurality of transport packets, responsive to an affirmative determination that said destination is serviced by said second VoIP gateway." Again, the peer-to-peer gateway architecture of Thornton does not require such a determination since all communication is performed through VoIP gateways.

Furthermore, Thornton also fails to teach or suggest Applicants' limitations of "multiplexing, at said first VoIP gateway, said first voice traffic with a second voice traffic if said second voice traffic is being provided to said second VoIP gateway" and "transporting said multiplexed voice traffic to said second VoIP gateway utilizing a plurality of transport packets," as taught in Applicants' claim 1.

As taught in Applicants' invention of at least claim 1, first voice traffic and second voice traffic are multiplexed at a first VoIP gateway if the second voice traffic is being provided to the second VoIP gateway, and the multiplexed voice traffic is transported to the second VoIP gateway using a plurality of transport packets.

In the Office Action, the Examiner cites a specific portion of Thornton for teaching Applicants' limitation of "multiplexing, at said first VoIP gateway, said

first voice traffic with a second voice traffic if said second voice traffic is being provided to said second VoIP gateway." The cited portion of Thornton, however, actually states that, for transmission of voice data over the data network rather than the PSTN, multiplexing is not performed. Rather, Thornton teaches that, instead of multiplexing, voice traffic is instead sent to a DSP and microcontroller within the gateway which convert the voice traffic into IP packets for transmission over the data network. Specifically, the cited portion of Thornton states:

"Alternatively, if the gateway were to route an outgoing telephony call from a calling device, such as a telephone, computer modem or facsimile machine, connected to the PBX over the private data network (to effectuate a "Voice over IP" or VoIP call) instead of the PSTN, TDM switch 250, based on control information provided by microcontroller 240, connects an incoming time slot for that call, not to a time slot via T1/E1 transceiver/framer 2 and, from there, to an outgoing T1 trunk, but rather, via TDM bus 228, to an input of a DSP then available within DSPs 225 and ultimately to microcontroller 240. Collectively, that DSP and the microcontroller convert the digitized telephony signal for that call into suitable IP packets and transmit those packets, with appropriate IP addresses, over the LAN for subsequent carriage over the data network to a peer gateway." (Thornton, Col. 13, Lines 48 – 62, Emphasis added).

As such, although Thornton teaches multiplexing of voice traffic, Thornton merely teaches that multiplexing is performed for transmission of voice traffic over a PSTN. For example, Thornton teaches that "...a signal on a channel in an incoming T1 trunk, such as that carried by TDM lines 268, and originating from the PSTN, can be switched, through switch 250, to a corresponding time slot on an outgoing T1 trunk, such as over TDM lines 278, to the PBX, and vice versa, in order to support carriage of that call over the PSTN between caller and called locations." (Thornton, Col. 13, Lines 35-41, Emphasis added). In other words, Thornton clearly fails to teach or suggest multiplexing voice traffic for transporting the multiplexed voice traffic to a second VoIP gateway utilizing a plurality of User Datagram Protocol (UDP)/Internet Protocol (IP) transport packets, as taught in Applicants' invention of at least claim 1.

Furthermore, Sengodan and Subbiah fail to bridge the substantial gap as between Thornton and Applicants' invention of at least claim 1. Namely, both Sengodan and Subbiah, alone or in combination with each other and Thornton, fail to teach or suggest at least the limitations of "determining whether a destination is serviced by a second VoIP gateway, multiplexing, at said first VoIP gateway, said first voice traffic with a second voice traffic if said second voice traffic is being provided to said second VoIP gateway, and transporting said multiplexed voice traffic to said second VoIP gateway utilizing a plurality of transport packets, responsive to an affirmative determination that said destination is serviced by said second VoIP gateway," as taught in Applicants' invention of at least claim 1.

Sengodan is generally directed toward encryption and authentication of mini-packets in a multiplexed real time protocol (RTP) payload. As taught in Sengodan, mini-packets are added to the RTP payload, which is then padded to ensure that each mini-packet is an integral multiple of a predetermined block size. The disclosed arrangement is utilized within the context of a VoIP system in which each user sharing a single RTP/UDP/IP connection is associated with a respective channel identifier (CID).

Sengodan, however, fails to teach or suggest determining whether a destination is serviced by a second VoIP gateway and transporting multiplexed voice traffic to the second VoIP gateway utilizing a plurality of transport packets in response to an affirmative determination that the destination is serviced by the second VoIP gateway.

In the Office Action, the Examiner cites a portion of Sengodan for teaching this limitation of Applicants' invention. The portion of Sengodan cited by the Examiner specifically states that "[t]he assembly of mini-packets into a single RTP/UDP/IP payload 300 is shown in FIG. 3. The mini-packets 330, 350, 370 follow the IP header 310, the UDP header 312 and the RTP header 314. Each mini-packet 330, 350, 370 is delineated by two byte mini-headers 320, 340, 360, respectively. This approach requires a simple de-multiplexing algorithm at a receiver." (Sengodan, Col. 7, Lines 46-52).

As such, the cited portion of Sengodan merely describes the format of an RTP packet having mini-packets. Sengodan fails to teach or suggest Applicants' limitation of "determining whether a destination is serviced by a second VoIP gateway," as taught in Applicants' claim 1. Although Sengodan states that a de-multiplexing algorithm is required at the receiver, this statement simply does not teach or even suggest transporting multiplexed voice traffic to a second VoIP gateway utilizing a plurality of transport packets, responsive to an affirmative determination that the destination is serviced by the second VoIP gateway, as taught in Applicants' claim 1.

Subbiah generally discloses a knowledge-based connection admission method and apparatus for providing efficient multiplexing of data and speech over AAL2. Specifically, Subbiah is directed to asynchronous transfer mode (ATM) networks and, more particularly, a subset of the ATM communications protocols; namely, the ATM adaptation layer 2 (AAL2) environment which provides a fixed length packet transport protocol used for voice communication. Subbiah leverages various features within the ATM network to enable opportunistic insertion of data traffic into speech traffic to replace padding or silence.

Subbiah, however, is entirely unlike the claimed invention. Subbiah is devoid of any teaching or suggestion of an VoIP gateway or other VoIP teachings, much less determining whether a destination is serviced by a VoIP gateway, multiplexing first and second voice traffic if the second voice traffic is being provided to the VoIP gateway, and transporting multiplexed voice traffic to the VoIP gateway utilizing a plurality of transport packets in response to an affirmative determination that the destination is serviced by the VoIP gateway.

Thus, Thornton, Sengodan, and Subbiah, alone or in combination, fail to teach or suggest Applicants' invention, as a whole.

As such, Applicants submit that independent claims 1, 13, 27, and 33 are patentable over Thornton in view of Sengodan and further in view of Subbiah and fully satisfy the requirements of 35 U.S.C. §103. Furthermore, claims 2, 14, and 28 depend directly from independent claims 1, 13, 27, and 33 and recite

additional limitations thereof. As such and at least for the same reasons as discussed above, Applicants submit that these dependent claims are also patentable over Thornton in view of Sengodan and further in view of Subbiah and fully satisfy the requirements of 35 U.S.C. §103.

Therefore, Applicants respectfully request that this rejection under 35 U.S.C. §103(a) be withdrawn.

35 U.S.C. §103 Rejection of Claims 6-12, 18-26, and 32

The Examiner has rejected claims 6-12, 18-26, and 32(a) as being unpatentable over U.S. Patent 6,363,065 to Thornton et al. (hereinafter "Thornton") in view of Sengodan et al. and Subbiah and further in view of U.S. Patent 5,600,653 to Chitre et al. (hereinafter "Chitre"). Applicants respectfully traverse the rejection.

Claims 6-12, 18-24, and 32

Claims 6-12, 18-24, and 32 depend, directly or indirectly, from independent claims 1, 13, and 27, and recite additional features thereof. Moreover, for at least the reasons discussed above, the Thornton, Sengodan, and Subbiah references fail to teach or suggest Applicants' invention as recited in independent claims 1, 13, and 27, as a whole. Accordingly, any attempted combination of the Thornton, Sengodan and Subbiah references with any additional references, in a rejection against the dependent claims, would still result in a gap in the combined teachings in regards to the independent claims. As such, Applicants submit that dependent claims 6-12, 18-24, and 32 are also patentable over Thornton, Sengodan and Subbiah and fully satisfy the requirements of 35 U.S.C. §103.

Therefore, Applicants respectfully request that this rejection under 35 U.S.C. §103(a) be withdrawn.

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Claims 25-26

Applicants' independent claim 25 recites similar relevant limitations to those recited in independent claims 1, 13, 27, and 33. As such, and at least for the same reasons discussed above with respect to the Examiner's rejection of independent claims 1, 13, 27, and 33, claim 25 is patentable over Thornton, Sengodan and Subbiah and fully satisfies the requirements of 35 U.S.C. §103(a).

Furthermore, the Chitre reference fails to bridge the substantial gap between the Thornton, Sengodan and Subbiah references and Applicants' claimed invention.

The Chitre reference discloses a technique for improving ATM operation over a communications link having burst bit errors. Applicants again disagree with the Examiner's combining of ATM structure and VoIP structure to cobble together a hypothetical structure which allegedly renders the claimed invention obvious.

As such, Applicants submit that independent claim 25 is patentable over Thornton in view of Sengodan and Subbiah and further in view of Chitre and fully satisfies the requirements of 35 U.S.C. §103. Furthermore, claim 26 depends directly from independent claim 25 and recites additional limitations thereof. As such and at least for the same reasons as discussed above, Applicants submit that claim 26 is also patentable over Thornton in view of Sengodan and Subbiah and further in view of Chitre and fully satisfies the requirements of 35 U.S.C. §103.

Therefore, Applicants respectfully request that this rejection under 35 U.S.C. §103(a) be withdrawn.

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CONCLUSION

Thus, Applicants submit that none of the claims presently in the application are obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley at (732) 383-1434 or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 8/29/06



Eamon J. Wall
Registration No. 39,414
Attorney for Applicants

PATTERSON & SHERIDAN, LLP
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702
Telephone: 732-530-9404
Facsimile: 732-530-9808

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